

REMARKS

The claims remaining in the present application are Claims 1-24. The Examiner is thanked for performing a thorough search. Claims 1-24 have been amended. No new matter has been added. For example, support for the amendments to the independent Claims 1, 9 and 17 can be found among other places in the instant application at lines 8-15 on page 37 and lines 5-10 of page 25. Page 37 lines 8-15 state,

As an example, suppose that historical auction data repository contains data on past auctions of the specified item. Suppose also that in all of the past auctions the bidders belong to one of two segments with five bidders in each segment 1 and three bidders in segment 2. Some of these auctions are run under English format, and some are run under a sealed-bid first-price format. In this example, Bidding Model Selection Module 21 retrieves two bidding models and passes to the Structure Estimate Submodule 22. These bidding models are:...

Page 25 lines 5-10 state,

Market structure" is intended to mean a collection of variables that describe the factors that may affect the bidding behavior of bidders. A market structure is characterized by two sets of variables: a first set of variables collectively describes the auction "environment," and a second set of variables collectively describes the auction "mechanism..

OATH/DECLARATION

On page 5, the Examiner submits the oath/declaration is defective because it does not identify the citizenship for each inventor. Specifically it does not identify the citizenship of joint inventor Tongwei Liu.

A substitute oath/declaration is submitted herewith, signed by inventor Tongwei Liu identifying his citizenship. As stated in the MPEP §602.02 the original oat/declaration taken together with the substitute oat/declaration should be acceptable.

CLAIM REJECTIONS

35 U.S.C. §101

Claims 1, 9 and 17

Claims 1, 9 and 17 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicants have reviewed the Examiner's reason for rejection under 35 U.S.C. §101 and respectfully submit that the rejection under 35 U.S.C. §101 of Claims 1, 9 and 17 is improper and should be withdrawn.

Regarding Claims 1, 9 and 17, in the first paragraph under the heading "Claim Rejections – 35 USC §101" of the present Office Action, the Office Action states, "Claims 1, 9 and 17 are rejected under 35 U.S.C. 101 because the invention fails to provide a useful, concrete and tangible result."

Regarding the above Examiner statements, Applicants respectfully submit that a produced "tangible result" as defined in the MPEP appears to be a tangible result that is produced by the invention as claimed, not produced as in "outputting...in a tangible form". That is, the "tangible form" language provided by the Examiner appears to be merely a superfluous method of presenting the tangible result presently produced by the Invention (emphasis added).

Specifically, Applicants have reviewed related case law and the MPEP and do not understand the "produce a tangible result" language to be limited to an output such as a piece of paper, or display on a monitor.

For example, In *re State Street*, 149 F.3d 47 USPQ2d 1596, 1600-1601 (Fed. Cir. 1998), it was held that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"-- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades (emphasis added).

Furthermore, MPEP 2106 (2)b) clearly states that the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or

thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result. *Benson*, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no substantial practical application.”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” *Diehr*, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also *Corning*, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . .”). In other words, the opposite meaning of “tangible” is “abstract.” (emphasis added)

In other words, Applicants respectfully submit that the present invention overcomes the tangible non-statutory subject matter requirements of 35 U.S.C. §101 when the invention produces a real-world result, not when the invention outputs or displays the produced tangible real-world result. That is, Applicant understands tangible result to refer to a result that is capable of being understood and evaluated, and therefore regarded as real.

For the above reasons, Applicants respectfully submit that both Claims 1 and 11 produce the useful, concrete and tangible result of “to determine an auction format.” That is, the present Claimed invention produces the tangible result of an auction format. Moreover, the result, e.g., an auction format, is capable of being understood and evaluated, and therefore should be regarded as real.

Moreover, Applicants respectfully submit that the actual manner in which the produced results of the auction format are displayed, e.g., output to a screen, printed on a piece of paper, placed in a folder, or otherwise presented, are immaterial as to whether or not the results are tangible.

Therefore, Applicants respectfully submit the rejection of Claims 1, 9 and 17 under 35 U.S.C. §101 is improper and should be withdrawn.

Regarding Claims 1, 9 and 17, in lines 2-4 of the first paragraph under the heading “Claim Rejections – 35 USC §101” of the present Office Action, the Office Action goes on to state, “The evaluating step is unclear because it is uncertain how

the evaluation occurs (i.e., evaluating mean, variance etc.) and how one would use that information to determine a result. See also discussion under 112, second paragraph.”

Although this rejection was made under 35 U.S.C. 101, the reasoning provided by the Office Action for the rejection sounds more like an enablement rejection. The instant application provides sufficient information to enable one of ordinary skill in the art to implement “evaluating said first outcome of said market and at least said second outcome of said market to determine an auction format of said market” among other places at page 45 line 13 to page 46 line 10.

Regarding Claims 1, 9 and 17, in the second paragraph under the heading “Claim Rejections – 35 USC §101” of the present Office Action, the Office Action goes on to state, “Claims 9 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are mixing statutory classes.”

Claim 9 has been amended to recite structure. Claim 17 is a computer-readable medium claim for causing a computer system to execute the steps in a method...the method comprising the steps of:” Applicants respectfully submit that Claim 17 does not mix statutory classes. It is directed toward a computer-readable medium. Applicants respectfully submit that the preamble of Claim 17 uses a form that would be readily understand by anyone of ordinary skill in the art and that is well known to Examiners and Patent Prosecutors.

35 U.S.C. §112

Claims 1-24

At the top of page 6, the Office Action rejected Claims 1-24 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

In the middle of page 6, the Office Action asks with respect to “relevant bidding model” and “bidding model, “Which identifies the required elements used for selecting the bidding model?” As can be seen from reading the Claims and the specification, Applicants respectfully point out that Claims 1, 9 and 17 recite “selecting a relevant bidding model...” (emphasis added) where bidding model has an adjective “relevant” and the “relevant bidding model” is selected. Pg. 18 lines

20+- col. 19, line 1 state, "A bidding model specifies..." with no adjective in front of the "bidding model." Both the relevant bidding model and the bidding model specify bidding behavior types of information. The relevant bidding model is selected as a function of information held... The bidding model is a function of... The Claims 1, 9 and 17 as well as Pg. 18 lines 20+- col. 19, line 1 use the word "function," however, as can be seen from reading the claims and the specification, the "relevant bidding model" is selected as a function of... whereas the "bidding model" is a function of.

At the top of page 7, the Office Action states, "The meaning of characteristics of said market is indefinite. What are the characteristics of the market? E.g., Could just saying the market is an auction be sufficient. If it is something more, what is it?" Applicants respectfully point out that Applicants are their own lexicographers MPEP 2173.01 states,

A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as **>any special meaning assigned to a term is clearly set forth in the specification.

Enabling support for "characteristics of said market" can be found in numerous places of the instant application such as the description of step 121 of Figure 12 (also referred to as process 40) which can be found at page 37 line 9 to page 40 line 11.

On lines 4-6 of page 7, the Office Action states, "The meaning of 'bidding model is indefinite. What is the bidding model? What elements are required to select it?" As can be seen from reading the Claims 1, 9 and 17, Applicants respectfully point out that Claims 1, 9 and 17 recite "a relevant bidding model." The "relevant bidding model" specifies bidding behavior. The "relevant bidding model" is selected "as a function of information held private by a bidder and said characteristics of said market."

On lines 6-16 on page 7, the Office Action states, "What is the estimated structure? How is it selected? How does the estimated structure tie in with the other claim limitations? E.g., The specification says that a collection of variables are required to estimate the structure of the market however this is never addressed in the claims." First, Applicants respectfully point out that the specification does not say that the collection of variables is a required element. However, in the interest of

expediting prosecution of the instant application, Applicants have amended the independent claims.

On lines 17-20 on page 7, the Office Action states, "The meaning of bidding behavior is indefinite. How can specifying bidding behavior be a requirement of the bidding model (as claimed)? Yet the bidding model is used to predict bidding behavior (as claimed)? Which comes first? Also, are specified and predicted bidding behaviors different in some way? As can be seen from reading the Claims 1, 9 and 17, Applicants respectfully point out that Claims 1, 9 and 17 recite "relevant bidding model" and "predicting first bidding behavior ...predicting second bidding behavior..." The "relevant bidding model" specifies "bidding behavior" and is selected "as a function of information held privately by a bidder..." Estimated structures of said market, characteristics of said market and said relevant bidding model are used as part of predicting the first and second bidding behaviors. The bidding behavior specified by the relevant bidding model can be used as a part of predicting the first bidding behavior and the second bidding behavior.

In the last paragraph on page 7, the Office Action states, "What are the outcomes to be expected? How are they used to make a determination? Are they evaluated from a bidder or seller perspective? E.g., Are you looking for the highest or lowest price? Once you have this information, how do you know what is preferred?" Applicants respectfully point out that Claims 1, 9 and 17 recite "evaluating said first outcome of said market and at least said second outcome of said market to determine an auction format of said market." Therefore, as can be seen from reading Claims 1, 9 and 17, the outcome is "...to determine an auction format..." As far as what is used to determine the auction format, Applicants point the Examiner to the features recited by the Claims, which recite among other things, "characteristics of said market," "relevant bidding model," "information held privately by a bidder," "predicting a first bidding behavior...", "predicting a second bidding behavior," "estimated structure of said market," "predicting a first outcome of said market based on said first bidding behavior," and "predicting a second outcome of said market based on said second bidding behavior." Further, the Claims 1, 9 and 17 recite various relationships between these recited features such as "...as a function of...said characteristics of said market...utilizing said first estimated structure of said market, said characteristics of said market and said relevant bidding model...based on said first bidding behavior..."

At the top of page 8, the Office Action asserts that “relevant bidding model” is a relative term which renders the claim indefinite and that the term “relevant” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Applicants respectfully disagree. The instant application provides more than enough information so that one of ordinary skill in the art could implement a version of “selecting a relevant bidding model specifying bidding behavior as a function of information held privately by a bidder and said characteristics of said market.” For example refer to page 37 line 8 to page 38 line 2 for two examples of relevant bidding models-Model 1 and Model 2.

On page 8, the Office Action states that Claims 1, 9 and 17 are indefinite because

- a) The scope of the claims are unclear. Terms such as ‘structure’, ‘characteristics of said market’ are broad, abstract concepts. b) There is insufficient correlation or interrelationship among the steps. c) There is no requirement of the claim to produce a result (i.e., the claim has not outputted a result). d) The evaluating step is unclear. How does the evaluating occur (i.e., evaluating mean, variance etc.)? e) The claim recites the limitation ‘relevant bidding model’ it is unclear what is meant by relevant.

Applicants respectfully disagree. For reasons already provided under the 101 rejection, the terms such as “characteristics of said market,” “a first and a second estimated structure of said market” are not broad, abstract concepts. There is sufficient correlation or interrelationship among the steps. For example as already stated, the Claims 1, 9 and 17 recite various relationships between these recited features such as “...as a function of...said characteristics of said market...utilizing said first estimated structure of said market, said characteristics of said market and said relevant bidding model...based on said first bidding behavior...” Claims 1, 9 and 17 produce the result “to determine an auction format...” Further, the instant application provides sufficient enablement so that one of ordinary skill in the art could implement “evaluating said first outcome...and...said second outcome...” for example in the description of step 126 (also known as process 90) at page 45 line 13 to page 46 line 16. Applicants have already addressed why “relevant bidding model” is clear.

With respect to the Office Action's statements concerning Claims 9-16, Applicants have amended the system Claims 9-16 to recite structural components which are novel and non-obvious.

The Office Action states on page 9 with respect to Claims 2, 10 and 18, "The claim recites the limitation 'first user input.' Who is the user (i.e., bidder, seller)? Does it matter?" First, Applicants respectfully point out that Claims 2, 10 and 18 do not recite "a user." Second, as can be seen from reading Claims 2, 10 and 18, Applicants respectfully point out that "first user input comprises information identifying an item to be auctioned." Therefore, a user would be a person that is capable of providing "information identifying an item to be auctioned."

The Office Action states on page 9 with respect to Claims 2, 10 and 18, "The claim recites the limitation 'auction characteristics data.' How is this different than the characteristics of said market?" As can be seen from reading the Claims 2, 10 and 18, Applicants respectfully point out that Claims 2, 10 and 18 recite "said selecting characteristics of said market step comprises the steps of...retrieving ...auction characteristics data...outputting said auction characteristics data"

The Office Action states toward the end of page 9, "The term 'similar items' in claim 2 is a relative term which renders the claim indefinite. The term 'similar' is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention." MPEP 2173.05(b) states,

When a term of degree is presented in a claim, first a determination is to be made as to whether the specification provides some standard for measuring that degree. If it does not, a determination is made as to whether one of ordinary skill in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention.

The Claims and the written description of the instant application provide sufficient information so that someone of ordinary skill in the art could determine for example that two cars are similar items.

The Office Action states at the top of page 10 with respect to Claims 3, 11 and 19, "The claim recites the limitation 'auction characteristics data.' How is this different than the characteristics of said market?" The auction characteristics data, according to one embodiment, can be obtained from a historical auction data

repository (lines 7-8 of page 18) and used as a part of selecting characteristics of said market (refer to the description of step 121 and independent Claims 1, 9 and 17).

In lines 3-4 on page 10, the Office Action states with respect to Claims 4, 12 and 20, "The claim recites the limitation 'unobservable variables.' What is this? Variables of what?" Applicants respectfully point out that Claims 4, 12 and 20 recite that these unobservable variables can be expressed in terms of observable bids by inverting said relevant bidding model.

In lines 7-8 on page 10, the Office Action states with regards to Claims 4, 12 and 20, "The claim recites the limitation 'estimated latent structure of said market' What is this? How is it estimated? How is it different than the estimated structure?" Applicants have amended Claims 4, 12 and 20 to address this issue.

On line 9 of page 10, the Office Action states, "Should 'said bid model' be – said bidding model--?" Applicants have amended Claims 4, 12 and 20 to address this issue.

On page 10, the Office Action states with regards to Claims 5, 13 and 21, "The claim recites 'wherein said bidding model has embedded an unknown structure, and wherein said predicting a bidding behavior step comprises the steps of:' Is the bidding model a function of the unknown structure also?" Applicants respectfully point out that Claims 5, 13 and 21 recite "said relevant bidding model has embedded an unknown structure..." (emphasis added). Therefore, as is evident from reading the claims, Applicants respectfully point out that the unknown structure is embedded in the relevant bidding model. The Office Action goes on to state, "Are you referring to both the predicting a first bidding behavior step and the predicting a second bidding behavior step?" Applicants have amended Claims 5, 13 and 21 to address this issue. The Office Action goes on to state, "How is the unknown structure different than the estimated latent structure and the estimated structure?" Applicants are not clear as to what the Office Action is asking. It shall be assumed that the Office Action intended to ask how does the estimated structure recited in Claim 5 relate to "estimated latent structure of said market" and "said estimated structure" recited by Claim 4. Both Claims 4 and 5 have been amended. Claim 5

now recites “substituting said estimated structure of said market for said unknown structure.” Therefore, Applicants believe that this issue has been addressed.

On page 10, the Office Action states with regards to Claims 6, 14 and 22, “The claim recites the limitation ‘second user input.’ Who is the user (i.e., bidder, seller)? Does it matter?” First, Applicants respectfully point out that Claims 6, 14, and 22 do not recite “a user.” Second, as can be seen from reading Claims 6, 14 and 22, Applicants respectfully point out that Claims 6, 14 and 22 recite “said second user input comprises: an evaluation criterion; a candidate auction format; and a constraint.” Therefore, a user would be a person that was capable of providing “evaluation criterion, candidate auction format and a constraint.”

At line 18 of page 10, the Office Action states, “The claim recites the limitation ‘an evaluation criterion.’ What is this?” As can be seen from reading Claims 6, 14, and 22, evaluation criterion is criterion that is used in evaluation. A value is obtained from the evaluation criterion where the value is based on said estimated structure of said market, said bidding behavior prediction, said candidate auction format and said constraint and where the value comprises said first predicted outcome.

At line 19 of page 10, the Office Action states, “The claim recites the limitation ‘constraint.’ What is this?” As can be seen from reading Claims 6, 14 and 22, a constraint is a part of the second user input, a prediction is made based on the constraint, said value of said evaluation criterion is obtained based on “.... said constraint...”

At lines 21 and 22 of page 10, the Office Action states, “The claim recites the limitations ‘predicting a first outcome of said market step’, ‘said estimated structure’, ‘said bidding behavior’, ‘said first predicted outcome.’ Are you referring to both the predicting a first outcome step and the predicting a second outcome step?” Applicants respectfully point out that these Claims recite “said predicting of said first outcome...” (emphasis added).

In the second paragraph on page 11, the Office Action states with regards to Claims 7, 15 and 23, “The claim recites the limitation ‘third user input.’ Who is the user (i.e., bidder, seller)? Does it matter?” First, Applicants respectfully point out

that Claims 7, 15 and 23 do not recite “a user.” Second, as can be seen from reading Claims 7, 15 and 23, Applicants respectfully point out that the third user input comprises a plurality of candidate auction formats, therefore, a user would be a person who could provide “a plurality of candidate auction formats.”

In the third paragraph on page 11, the Office Action states “The claim recites the limitation ‘evaluating said first outcome of said market step’, Are you referring to evaluating a first outcome and evaluating at least a second outcome?” Claims 7, 15 and 23 have been amended to clearly recite one embodiment.

At lines 9 and 10 on page 11, the Office Action states, “The claim recites the limitation ‘descriptive statistics.’ What is this? How is it descriptive?” As can be seen from reading Claims 7, 15 and 23, Applicants respectfully point out that the descriptive statistics comprise a mean and a variance and are for each of said candidate auction formats.

At line 11 on page 11, the Office Action states, “Should ‘said plurality’ be – said plurality of candidate auction formats--?” As can be seen from reading Claims 7, 15, 23 and the claims from which they depend, Applicants respectfully point out that the only plurality recited is the “plurality of candidate auction formats.” Therefore, the phrase “a plurality of candidate auction formats” provides antecedent basis for the phrase “said plurality.”

At lines 12-14 on page 10, the Office Action states with respect to Claims 8, 16 and 24, “The claim recites the limitation ‘evaluating said first outcome of said market step’, Are you referring to evaluating a first outcome and evaluating at least a second outcome?” Applicants have amended Claims 8, 16 and 24 to address this issue.

At lines 14-15 on page 10, the Office Action states, “The claim recites the limitation ‘highest ranking.’ What is this? How is it descriptive?” Applicants have amended Claims 8, 16 and 24 to recite “the highest of said rankings.” Therefore, Applicants believe that this issue has been addressed.

At lines 16-18 on page 10, the Office Action states, “Claim 8, 16 and 24 recite the limitation ‘the highest said ranking’. There is insufficient antecedent basis for

this limitation in the claim.” Applicants have amended Claims 8, 16 and 24 to recite “the highest of said rankings.” Therefore, Applicants believe that this issue has been addressed.

The Office Action states on line 17-18 of page 10, “Is this ranking with the highest calculated mean?” As can be seen from reading the claims, Applicants respectfully point out that Claims 7, 15 and 23 recite “ranking each said candidate auction formats with respect to said calculated mean...”

The question asked on line 19 of page 11 has already been answered herein.

Applicants respectfully submit that based on the information provided and the amendments made that Claims 1-24 overcome the rejections under 35 U.S.C. 112, second paragraph.

35 U.S.C. §103

Claims 1, 3, 4, 6, 7, 8, 11, 12, 14, 15, 16, 17, 19, 20, 22, 23 and 24

On page 12, the Office Action rejected Claims 1, 3, 4, 6, 7, 8, 11, 12, 14, 15, 16, 17, 19, 20, 22, 23 and 24 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,871,190 by Seymour et al. (referred to hereinafter as “Seymour”). Applicants respectfully submit that embodiments of the present invention are neither taught nor suggested by Seymour.

Independent Claim 1 recites,

A method for determining an auction format for a market, said method comprising the steps of:

selecting characteristics of said market;

selecting a relevant bidding model specifying past bidding behavior as a function of information held privately by a bidder and said characteristics of said market;

selecting at least a first and a second estimated structure of said market, wherein said first estimated structure of said market describes at least a first factor that affects how bidders behave and wherein said second estimated structure of said market describes at least a second factor that affects how bidders behave;

predicting a first bidding behavior utilizing said first estimated structure of said market, said characteristics of said market and said relevant bidding model;

predicting a first outcome of said market based on said first bidding behavior;

predicting at least a second bidding behavior utilizing at least said second estimated structure of said market, said characteristics of said market and said relevant bidding model;
predicting a second outcome of said market based on at least said second bidding behavior; and
evaluating said first outcome of said market and at least said second outcome of said market to determine an auction format for said market.

Seymour and the claimed invention are very different. Applicants understand Seymour to teach an interactive auction system that automatically generates a selling strategy based on input relating to the merchandise to be auctioned (Col. 2 lines 41-43). In particular, Seymour teaches that a selling strategy is generated based solely on information input into the system by sellers (Col. 6 lines 39-63).

With reference to Figure 5 of Seymour, at step 204, data is entered into the system by a seller concerning the item the seller wishes to sell. This information includes the minimum price the seller is prepared to accept (Col. 6 lines 46-52). At step 206, an optimum auction type for the auction is generated based on the input data by a selling strategy generator (col. 6 lines 56-64). In particular, the bidding strategy generator generates the optimum value based on data input by the user. Further, Applicants respectfully submit that Seymour teaches a bidding strategy that is selected based on specific data input by a bidder and a selling strategy that is selected based on specific data input by a seller (Col. 5 lines 11-15).

Applicants respectfully agree with the Office Action that Seymour fails to teach, describe or suggest "selecting a relevant bidding model specifying bidding behavior as a function of information held privately by a bidder and said characteristics of said market," as recited by Claim 1. The Office Action states, "Seymour fails to explicitly disclose selecting a relevant bidding model specifying bidding behavior as a function of information held privately by a bidder and said characteristics of said market." Applicants respectfully agree. The Office Action goes on to state, "Official Notice is taken that it is old and well-known that information held by a buyer...coupled with their understanding of existing market conditions...influences behavior." Applicants respectfully point out that Claim 1 recites "selecting a relevant bidding model specifying past bidding behavior as a function of information held privately by a bidder and said characteristics of said market," which is novel and non-obvious. Further, there has been a long felt need for "selecting a relevant bidding model specifying past bidding behavior as a

function of information held privately by a bidder and said characteristics of said market.”

The Office Action states on page 15 lines 7-8, “One would have been motivated to make the method adaptable to changing auction environments.” Applicants interpret the Office Action’s reference to “changing auction environments” to mean that under one set of conditions one type of auction format may provide optimal results while under another set of conditions another type of auction format may provide optimal results. However, Seymour failed to teach “selecting a relevant bidding model specifying past bidding behavior as a function of information held privately by a bidder and said characteristics of said market.” Therefore, Seymour failed to recognize the problem. Since there has been a long felt need and Seymour failed to recognize the problem, it is improper use Seymour in an obviousness rejection.

Applicants respectfully submit that Seymour does not describe, teach or suggest, “selecting at least a first and second estimated structure of said market” for reasons provided in the response to argument’s section below.

Since Seymour does not teach or suggest “first and second estimated structures of said market,” Applicants respectfully submit that Seymour does not describe, teach or suggest, predicting bidding behaviors utilizing estimated structures of said market. Further, Seymour does not teach or suggest predicting bidding behaviors because Seymour’s bidder behavior is either explicitly entered by the bidder, thus not predicted, or is not considered as it is not input by the seller.

Since Seymour does not teach predicting bidding behavior, Seymour cannot teach predicting an outcome of a market based on predicted bidding behavior. The Office Action asserts that Seymour teaches predicting an outcome of a market based on a bidding behavior at Col. 6 lines 56-59. This response provides reasons why Col. 6 lines 56-59 do not teach predicting an outcome of a market based on predicted bidding behavior in the response to arguments section below.

RESPONSE TO ARGUMENTS SECTION

The Office Action asserts in the 4th line on page 30 that Seymour teaches “relevant bidding models” at Col. 4 lines 49-51 which states, “A series of basic

bidding and selling strategies are then generated for each type of auction type (i.e. Sealed bid, Vickrey, English or Dutch) on the basis of these values...”

With regards to Claim 1 reciting “information held privately by a bidder,” the Office Action states “Seymour, similarly considers the distribution of bidders’ private information by estimating the minimum, maximum value and valuation range bidders’ will likely place on the auctioned items (Seymour, col. 4, line 30+-col. 5, line 15). At Col. 4 line 30-49, Seymour states, “The bidding and selection strategy generators 34 and 54 comprise evolved bidding and selling strategies respectively which have been created on the basis of certain assumptions...These estimates are intended to cover all possible price scenarios which could be achieved for the merchandise at an auction.” Since the estimates taught by Seymour cover all possible price scenarios, Applicants interpret Seymour’s estimates as not being able to teach “information held privately by a bidder.” Further, the Office Action dated September 5, 2007 failed to address the arguments in the first paragraph on page 12 of the Appeal Brief dated May 29, 2007. To reiterate what the Appeal Brief stated, the “bidder’s willingness to pay” in the present Specification with Seymour’s “price the bidder is willing to pay” (Col. 6 lines 1-12 of Seymour) are not analogous. For example, a person may be willing to pay a certain price for a product. If the product goes over the price, then the person is no longer willing to pay for the product. In contrast, a person may really want a product, in that case, the actual price may have no effect on the “bidder’s willingness to pay.” Applicants respectfully request that the next Office Action address Applicants’ arguments with respect to the “bidder’s willingness to pay” in the present specification is not analogous to Seymour’s “price the bidder is willing to pay.” For at least these reasons, Applicants respectfully submit that the private information as claimed is not analogous to, or taught or rendered obvious over Seymour.

In the last paragraph on page 30, the Office Action confuses “characteristics of a market” with “market structure.” Page 24 lines 14-15 of the instant application state, “The market structure can be decomposed into two parts: characteristics of the auction mechanism and characteristics of the environment.” Page 25 lines 11-15 and page 26 lines 17-20 are again discussing aspects of “market structure.” The Office Action asserts that Seymour teaches one (e.g., characteristics of the auction mechanism) of Applicant’s market structure parts at Col. 6 lines 1-12 (misquoted as pg 6 lines 1-12) and Seymour teaches the second (characteristics of the

environment) of Applicant's market structure parts at Col. 3 lines 3-51, col. 4 lines 49-51 and col. 6 line 56 to col. 7 line 13).

Claim 1 recites "selecting characteristics of said market...selecting a relevant bidding model specifying past bidding behavior as a function of information held privately by a bidder and said characteristics of said market...selecting at least a first and second estimated structure of said market...predicting a first bidding behavior utilizing said first estimated structure of said market..." The "characteristics of said market" and the "first and second estimated structure of said market" as recited by Claim 1 are different from each other. It appears to Applicants that the Office Action is confusing them with each other.

In order to expedite prosecution, Applicants shall address why each cited portion of Seymour (Col. 6 lines 1-12, Col. 3 lines 3-51, col. 4 lines 49-51 and col. 6 line 56 to col. 7 line 13) does not teach or suggest either "characteristics of said market" or "estimated structure of said market" as recited by Claim 1.

At Col. 6 lines 1-12 Seymour states,

The bidder is first requested to input whether he wishes to bid or to sell and selects the bid icon displayed on the screen 25 (Step 102). A bid template appears on the screen 25 into which the bidder enters via the keyboard 26 criteria concerning the car he wishes to buy, such as the manufacturer, the model type, the year or years of manufacture, the maximum and minimum price that he is prepared to pay for the car and geographical area limitations for possible auctions at which he is prepared to bid (Step 104). It should be understood that other criteria such as the color of the car, the maximum number of owners, etc., may also be stipulated by the bidder as desired (emphasis added).

Applicants do not understand Seymour to teach estimating anything at Col. 6 lines 1-12 and therefore Seymour does not teach "estimated structure of said market." Further, Applicants do not understand Seymour to teach selecting anything at Col. 6 lines 1-12 and therefore Seymour does not teach or suggest "selecting characteristics of said market" at Col. 6 lines 1-12.

Col. 3 lines 3-51 of Seymour discuss agents that are capable of communicating with each other to execute a transaction and the four major types of auction-Sealed bid, Vickrey auction, English auction, and Dutch auction. Col. 3 lines 3-51 refer to agents and four major types of auction neither of which Applicants

understand to teach Claim 1's "characteristics of said market" or Claim 1's "estimated structure of said market." Applicants do not understand Seymour's agents to be selected nor estimated, therefore Seymour's agents could not teach Claim 1's "characteristics of said market" or Claim 1's "estimated structure of said market." Applicants respectfully submit that it would not make sense for Seymour's four major types of auctions to teach "characteristics of said market." Further, Applicants do not understand Seymour's major types of auction to be estimated and therefore would not be estimated structures of a market.

Seymour states Col. 4 lines 49-51 states, "A series of basic bidding and selling strategies are then generated for each type of auction type (i.e., Sealed bid, Vickrey, English or Dutch)." Col. 4 lines 59-51 refer to strategies and auction types. Applicants respectfully submit that it would not make sense for Seymour's strategies to teach Claim 1's "characteristics of said market." Further, Applicants do not understand Seymour's strategies to be estimated and therefore would not teach Claim 1's "estimated structure of said market." Lastly, Applicants do not understand Seymour to teach using his strategies to predict bidding behavior.

Applicants respectfully submit that it would not make sense for Seymour's four major types of auction to teach "characteristics of said market." Applicants do not understand Seymour to select an auction type or select a relevant bidding model as a function of his auction type. Further, in the 4th line on page 10, the Office Action states, "Seymour discloses a bidding model (Seymour, Col. 4, lines 49-51)." Note that the Office Action asserts in the 4th line on page 30 that Seymour's types of auction teach Claim 1's "relevant bidding model" and then asserts that Seymour's types of auction teach either Claim 1's "characteristics of said market" or Claim 1's "estimated structure of said market." Applicants do not believe that Seymour's types of auction could teach all of these features. Further, Applicants do not understand Seymour's major types of auction to be estimated and therefore would not teach estimated structures of a market.

At Col. 6 line 56 to Col. 7 line 13, Seymour discusses that
...an optimum type of auction ...is determined...together with optimum values for the reserve bid price ...and for the starting bid price...The seller is requested to confirm agreement with these strategy parameters...On confirmation of agreement...the seller agent 56 is generated...If the seller does not confirm agreement...he can choose to abandon creation ...or can amend...

Applicants respectfully submit that it would not make sense for Seymour's optimum type of an auction to teach "characteristics of said market." Further, Applicants do not understand Seymour's optimum type of an auction to teach "estimated structure of said market." For example, Claim 1 recites "predicting first bidding behavior utilizing said first estimated structure of said market..." Applicants do not understand Seymour to teach predicting bidding behavior utilizing his optimum type of an auction. However, there is another reason that Applicants do not understand Seymour to teach predicting bidding behavior utilizing estimated structure of a market. For reasons provided herein, Applicants do not understand Seymour to teach predicting bidding behavior.

The Office Action states at lines 3-11 on page 31,

Although the private information and characteristics of the market are not explicitly discussed as being a function of the bidding behavior. It is old and well-known that information held by a buyer (e.g., amount they are willing to pay, risk tolerance etc.) coupled with their understanding of existing market conditions (e.g., rules, demand etc.) influences behavior. For example, investment decisions, auctions, purchasing decisions.

Thus, Seymour makes obvious a bidding model (ie., bidding strategy) specifying bidding behavior as a function of information held private by a bidder and said characteristics of said market.

Applicants respectfully disagree for reasons provided herein with respect to "private information," and so on.

Claim 1 recites, "predicting a first bidding behavior utilizing said first estimated structure of said market, said characteristics of said market and said relevant bidding model." The Office Action states starting on line 14 of page 31, "The claimed invention states, 'predicting a bidding behavior' which is broad enough to cover the bidding behavior of all the various bidders." In making this statement, Applicants respectfully understand the Office Action to be confused between predicting bidding behavior and actual bidding behavior. The Office Action goes on to state at lines 16-18 on page 31, "The recommendations to the seller and/or bidder regarding how to bid and/or sell is based on a prediction of the bidding behavior of the various bidders." Applicants respectfully ask where does Seymour teach predicting bidding behavior? As discussed in the first paragraph of 13 of the Appeal Brief dated May 29, 2007 Seymour's bidding strategy "...is selected based on

specific data input by a bidder and that a selling strategy is selected based on specific data input by a seller (col. 5, lines 11-15). Accordingly, Seymour does not predict behavior of a bidder, as the bidder's behavior is either explicitly entered by the bidder, thus not predicted, or is not considered as it is not input by the seller." The Office Action dated September 5, 2007 does not address this argument that was presented in the first paragraph on page 13 of the Appeal Brief. Applicants respectfully request that the next Office Action address the argument presented in the first paragraph on page 13 of the Appeal Brief.

Claim 1 recites, "predicting a first outcome of said market based on said first bidding behavior...predicting a second outcome of said market based on said second bidding behavior...evaluating said first outcome of said market and at least said second outcome of said market to determine an auction format for said market." The Office Action appears to assert that Seymour teaches "predicting a first outcome of said market based on said first bidding behavior...predicting a second outcome of said market based on said second bidding behavior...evaluating said first outcome of said market and at least said second outcome of said market to determine an auction format for said market" at Col. 6 lines 56-59. Seymour states at Col. 6 lines 56-59,

The input data is transmitted to the processing unit 50 of the seller site terminal 42 and the optimum type of auction for sale of such merchandise is determined (e.g., Sealed bid, Vickery, English or Dutch) by the selling strategy generator 54.

The previous paragraph at Col. 6 lines 39-55 of Seymour discusses examples of the input data such as "information...concerning the car...such as the manufacturer, the model type the year of manufacture, the minimum price that he is prepared to accept...and details of when the auction is to take place." Applicants understand Col. 6 lines 56-59 to state that an optimum type of auction for sale is determined based on this input data. Applicants do not understand Col. 6 lines 39-59 to teach that an auction format is determined by evaluating a first outcome of said market and at least a second outcome of said market where the outcomes of the market were predicted based on bidding behavior, the bidding behavior was predicted utilizing estimated structure of a market, and so on.

As already discussed herein, Applicants do not understand Seymour to teach "characteristics of said market," "estimated structures of said market" or "selecting a

relevant bidding model.” Therefore, Seymour cannot teach predicting bidding behaviors utilizing estimated structures of said market, said characteristics of said market and said relevant bidding model. Further, Seymour cannot teach predicting first and second outcomes of said market based on predicted bidding behaviors nor teach evaluating outcomes of said market to determine an auction format.

For at least these reasons, independent Claim 1 should be patentable. For similar reasons independent Claims 9 and 17 should also be patentable. Claims 1, 3, 4, 6, and 8 depend on Claim 1. Claims 11, 12, 14, 15 and 16 depend on Claim 9. Claims 19, 20, 22, 23 and 24 depend on Claim 17. These dependent claims include all of the limitations of their respective independent claims. Further, these dependent claims include additional limitations which further make them patentable. Therefore, these dependent claims should be patentable for at least the reasons that their respective independent claims should be patentable.

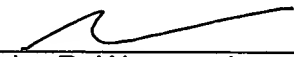
CONCLUSION

In light of the above listed amendments and remarks, reconsideration of the rejected claims is requested. Based on the arguments and amendments presented above, it is respectfully submitted that Claims 1-24 overcome the rejections of record. For reasons discussed herein, Applicants respectfully request that Claims 1-24 be considered by the Examiner. Therefore, allowance of Claims 1-24 is respectfully solicited.

Should the Examiner have a question regarding the instant amendment and response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,
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